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COVID-19: a lever for the recognition of obesity as a disease? The French experience

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Despite repeated efforts by the international scientific community, academic societies and the combined actions of patient associations, public authorities have difficulties in admitting that obesity is not just a risk factor but a disease. Could our current experience with the COVID-19 pandemic be a lever to advance the cause of people with obesity? In this crisis, it seems pertinent to report on the French experience with the actions of stakeholders that were able to challenge the status quo in this field.

Over the last decade in France, the mobilization of professionals and government-supported initiatives has generated great hope that obesity management could be improved together with substantial research investment. Political willingness, albeit with limited financial resources, have enabled some changes in the obesity landscape.

The first French national Obesity Program begun over 10 years ago led to the creation of 37 Specialized Obesity Centers (*Centres Spécialisés Obésité,* CSOs) whose objective was to harmonize and coordinate obesity management[1]. Five of these centers were recognized as Centers of Excellence combining healthcare and research. Annual funding for an administrative coordinator was designated at the 37 Centers. These Centers have been instrumental in developing

integrated care pathways for the management of persons with obesity, including medical and surgical approaches. Under this program, no funds were dedicated to research.

National coordination effort around obesity have advanced clinical care and research, In 2012, the CSOs became responsible for organizing healthcare resources under the hospice of the Directorate of Health Care Supply (DGOS), a division of the French Ministry of Solidarity and Health. Moreover in 2014, as part of the government's "Investments for the future", the French Clinical Research Infrastructure Network (FCRIN) funded the obesity research network, FORCE (French Obesity research Center of Excellence) with the aim of centralizing France's clinical research efforts. Then, the Minister of Health launched a new obesity roadmap 2019-2022 last October which is steered by the « DGOS » and the CSOs' coordinator. Placing obesity in the clinical care and research networks almost certainly has influenced the French public health approach to the COVID-19 crisis.

At the beginning of the pandemic, a joint task force between the French Association for the Study of Obesity (AFERO), FORCE and CSOs was created. On April 3, based on scientific concerns, an alert was sent to the Ministry of Health regarding the potential impact of COVID-19 in increasing the risk of disease severity in persons with obesity. Patients associations provided full support to this alert and signed the document. The following urgent needs were highlighted: reinforcing information regarding measures for people with obesity without creating panic, providing recommendations regarding lock-down, and work stoppage if necessary, facilitating virus screening access, and specifying good practices in the acute and medium term including post-bariatric surgery follow-up while trying to limit the potential double stigma of obesity and COVID-19. At the time of this alert, only several intensive care units in the United Kingdom[2] and France had produced warnings.

On April 7th, an article in the newspaper "Le Monde" discussed the potential role of obesity as a risk factor of COVID-19 severity. That same evening, the CSO/FORCE/AFERO alliance was informed of results from a French survey at the Lille University hospitals[3]: severe obesity increases the risk of invasive mechanical ventilation in intensive care, regardless of age, sex and diabetes status. These data were complemented by the Lyon University hospitals[4], where the odds of developing severe COVID-19 versus non-severe COVID-19 were higher in patients with

obesity than in patients without obesity (adjusted ORs ranging between 1.80 and 2.03). Another French survey in persons with diabetes resulted in similar findings: the association between BMI and the primary endpoint (intubation and/or death) remained significant after adjusting for other risk factors[5]. Similar results have also been observed in China[6], UK[7] and the United States[8,9,10]. However, caution should still be exercised when interpreting studies in countries where the prevalence of obesity is high, resulting in a high proportion of hospitalized people with obesity.

Based on the first AFERO/FORCE/CSO alliance warning, some measures were taken in record time. Obesity was finally recognized as a disease providing an incremental risk to develop severe forms of COVID-19. The French Ministry of Solidarity and Health produced a "Care sheet for people in a situation of obesity during the Covid-19 epidemic"[11].

The High Council of Public Health revised its initial position of March 31st and the BMI threshold defining the risk to develop severe Covid-19 was reduced from 40 to 30 kg/m^2 as of April 20th in agreement with the report from French National Authority for Health (HAS April 16th). General practitioners have been authorized to provide work stoppages for individuals with obesity. A free telephone line has been opened for psychological follow-ups but not dedicated only to those with obesity. Despite this progress, the demand for follow-up care with dieticians has not yet been met.

To date, the "AFERO-FORCE- CSO" alliance has produced various documents for patients, guidelines for practitioners and five Newsletters which take stock of clinical and scientific advances and organizational issues of the national lockdown and its recovery. Patients' associations were involved in disseminating information via the media.

Today, the challenge is not to watch the "soufflé" fall, but to build on authorities' awareness. This pandemic highlights the importance of multidisciplinary care for patients with obesity and the need to support the associated medical and paramedical costs (dietician, psychologist, nurse, exercice instructor). An equally important issue COVID-19 has raised is the need to develop therapeutic education programs in ambulatory care facilities, using telemedicine. This is what the obesity roadmap is about. All of these efforts have a cost and the future will tell us whether the COVID-19 experience will have been just a small blip of improvement or a real change in the

status quo in a sustainable way. Accessibility of care as well as fighting against stigmatization, remain great tasks ahead.

The French experience with COVID-19 has proven to be a lever for some acceptance of obesity as not a matter of body size, but a disease, that need to be taken seriously, both in treatment and research. The pandemic has revealed the need at better integrating obesity into the overall health and research systems in France with dedicated budget. Outcomes of the French Obesity Road map will tell if the COVID-19 lever will have long lasting implications for obesity in France. Moreover, the research effort in obesity still needs to be sufficiently funded. Moreover, will this crisis be helpful by pointing to the importance of promoting the research effort or will it worsen the situation with funds siphoned off from research for chronic diseases including obesity is another aspect to follow?

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